DOCUMENT RESUME

ED 380 193 PS 022 987

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TITLE Child Care Licensing: Georgia Impact Study.
INSTITUTION Quality Assist, Inc., Atlanta, GA.
SPONS AGENCY Ford Foundation, New York, N.Y.
PUB DATE 94
NOTE 37p.
AVAILABLE FROM Quality Assist, Inc., 368 Moreland Avenue, N.E., Suite 240, Atlanta, GA 30307 ($10).
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS *Day Care Centers; Enrollment; *Preschool Education; Preschool Teachers; *Standards; State Licensing Boards; *State Regulation; *Teacher Education; *Teacher Student Ratio; Wages
IDENTIFIERS Georgia; *Rules and Regulations

ABSTRACT

The state of Georgia revised its child care licensing regulations to include more stringent staff-to-child ratios, limits on group sizes, and increases in staff training hours. This study examined the impact of these changes in child care licensing rules and regulations on the child care industry in Georgia. The sample consisted of all licensed child care programs serving infants and toddlers. The study was conducted over a period of 2 years: the 1991 survey collected data prior to full implementation of the revised regulations, and the 1992 survey documented program changes and impact. The issues investigated by the study were: (1) the ease or difficulty of meeting the revised regulations; (2) the type of changes that were made in the child care programs; (3) staff-related issues such as its turnover, education and training, wages, benefits, and enrollment; and (4) the cost of child care. Contrary to predictions, the picture of child care in Georgia following the regulatory changes was a positive one. There was a modest increase in new child care programs and teaching positions. Wages at the lower end of the pay scale improved, and there was a net increase of three infants and toddlers per program. However, when viewed from a national perspective, the picture changes. The most controversial changes pertained to the reduction of staff-to-child ratios and the regulation of group size. In addition, the weekly cost of child care increased by an average of $3 to $5. In conclusion, the data from the study show that when modest regulatory changes were implemented, the market place did not appear to suffer negative consequences. (BAC)

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CHILD CARE LICENSING

GEORGIA IMPACT STUDY

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GEORGIA IMPACT STUDY

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Special thanks go to the following people who served on the local and national advisory panels.

Georgia Advisory Panel: Colley Case, Jo Cato, Louise Clifford, Mick Coleman, Malcolm Cummings, Laurie Dopkin, Marsha Gates, Ellery Hill, Glenn Ann O'Neal, Anita Payne, Linda Tout, Nancy Travis, Lynn White.

National Advisory Panel: Gina Adams, Richard Clifford, Mary Culkin, Norton Grubb, Karen Hill-Scott, Sandra Hofferth, Joan Lombardi, Gwen Morgan, Deborah Phillips, Phil Robbins, Barbara Willer, Edward Zigler.

The Child Care Licensing: Georgia Impact Study was funded by the Ford Foundation. The funders do not take responsibility for any statements or views expressed in this publication.

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Child Care Licensing: Georgia Impact Study

Executive Summary

The Child Care Licensing: Georgia Impact Study was funded by the Ford Foundation to examine the impact of the 1991 changes in child care licensing rules and regulations on the child care industry. The controversial revisions in regulations included more stringent staff-to child ratios from 1:7 for infants 0-18 months to 1:6 for infants 0-12 months. Ratios for toddlers changed from 1:10 for children 18-30 months to 1:8 for children 12-24 months. There were also limits on group sizes for the first time, and an increase in staff training requirements to 10 hours annually.

Concern was raised by the child care industry that these changes would cause financial hardship to programs and subsequently to parents. Because the changes in ratios focused primarily on infants and toddlers, there was concern that infant services would become too expensive and as a result discontinued. Or, in the worst case, it was projected that child care programs would be forced to close. Limits on group size, more stringent staff-to-child ratios, and additional training requirements have significant financial implications for programs.

The Child Care Licensing: Georgia Impact Study involved a 1991 and 1992 statewide survey of all licensed child care programs serving infants and toddlers. The 1991 survey was distributed before regulatory changes went into effect and the 1992 survey captured the impact one year after implementing the changes. Of the 1992 survey respondents, 60% were independent/for-profit programs, 35% were non-profit or church programs, and 5% were employer sponsored. The response rate was 39% in 1991 and 29% in 1992.

Directors were asked to explain their ratings. Directors who indicated that meeting the revised regulations was moderate to very easy (89%) reported that they had generally been meeting the requirements and in some cases this was because:

- the program was nationally accredited;
- the program was relatively new and began with higher standards than licensing required;
- company standards already exceeded licensing standards;
- the program was small and always had good ratios; or
- staff training was the only necessary change.

In contrast, only 12% of Directors, who indicated that meeting the revised regulations was somewhat to very difficult, reported that this was due to a variety of reasons including:

- lack of clarity in the written regulations;
- difficulty in interpreting regulations;
- cost increases for staffing;
- cost increases for training;
- time for staff training;
- availability of training;
- availability of qualified staff;
- program was small and without financial means;
- time provided to programs to meet requirements was inadequate.

There was concern that these regulatory changes would lead to more programs closing. At the end of the first year, however, this did not seem to be the case. During 1992, an equivalent number of child care programs

Executive Summary

closed (131) and new programs (136) opened. In addition, the 1992 program turnover rate was similar in pattern to previous years.

The regulatory changes did affect programs: 70% of the programs reported making changes in Training, 45% made ratio changes and 20% made changes in group sizes. Forty-six percent of the responding programs reported an average increase of 1 teacher in 1992.

Although the regulations led to changes as programs came into compliance, contrary to the fears of many, there was not an increase in staff turnover. Turnover rates did not differ from 1991 to 1992. A 28% turnover was reported in 1991 and 26% in 1992.

These regulations were not associated with reductions in staff qualifications. There was no significant difference in the level of education of the child care staff from 1991 to 1992. However, there was a significant increase in the number of staff receiving 10 or more hours of training.

Although there was fear that improving standards would lead to lowering staff salaries, that did not seem to be the case. Wages at the lower end of the pay scale improved in 1992. In 1992, the percentage of staff earning minimum wage or below decreased from 32% in 1991 to 20%, while those earning between $4.26 and $6.20 an hour increased from 55% to 64%. There were no significant differences in the staff benefits provided from 1991 to 1992.

There was also widespread interest in whether enrollment patterns would change after the regulations were enacted. Approximately 51% of the programs reported no change in enrollment and 49% of the programs reported changes in their 1992 enrollment. Analyses indicated there was a net increase of approximately 3 infants/toddlers per program. Only 18 programs reported reductions in enrollment due to regulatory changes. In contrast, 11 programs reported increases in child care slots to offset staffing increases that resulted from regulatory changes.

Prior to the passage of the regulations, the child care industry argued that the cost of care would increase. In fact, the average cost of child care did increase, from 1991 to 1992, by approximately $5 for infants and $4 for toddlers. The study did not assess how these increases have affected parents, particularly low-income parents. Data are not currently available in Georgia to determine if these are typical annual increases of the industry. While rates for these age groups increased, the range from minimum to maximum cost of care appears to be declining.

In conclusion, it is to be noted that the regulatory changes are quite modest and fall short of the standards recommended by the National Association for the Education of Young Children. For example, NAEYC recommends ratios of 1:4. Georgia's new regulations are 1:6. Only nine other states have ratios at or above 1:6. Some of these states are beginning to make improvements. Thus, this study is important in understanding the impact of quality improvements.

The child care marketplace is governed by many factors, only one of which is regulatory change. In addition, one year is a short period to assess change. However, after the first year, it appeared that there were no serious negative consequences for the programs that responded to the survey.

Child Care Licensing: Georgia Impact Study

Introduction

There is unequivocal evidence that the quality of child care during the early years has a lasting impact. It has been shown that children, particularly from low-income families, benefit from high quality programs. The findings of the most rigorous longitudinal studies reveal that children who attended high quality programs had higher IQ scores, fewer placements in special education, fewer grade retentions, and greater likelihood of graduation from high school (Lazar and Darlington, 1982; Lally, Mangione, Honig, and Wittner, 1988; Haskins, 1989). Data on the children from the High/Scope Perry Preschool Study, who are now 27 years old, have just been reported. The researchers found that adults born into poverty, who attended a high quality preschool programs at ages three and four as compared to a control group, had fewer criminal arrests, higher earnings, more property wealth, and greater commitment to marriage (Schweinhart & Weikart, 1993). Likewise, the Syracuse University Family Development Research Program found that low-income children, who experienced a comprehensive child care program for their first five years of life, had fewer and less severe juvenile delinquency offenses by age 15 (Lally and Mangione, 1993). A similar follow up study on the low-income children who attended the Frank Porter Graham Child Development Program at the University of North Carolina found that the children had higher IQ's and better scores on reading and math achievement at 15 years of age (Campbell and Ramey, 1993).

While high quality early childhood programs have the most significant impact on low-income children, poor quality programs may harm all children, rich and poor alike. Advantaged family circumstances do not shield children from the repercussions of low quality child care. When children are crowded into programs, when they have little to do and wander about aimlessly, when they receive little individualized attention from teachers, their growth and development can be hindered (Howes, Rodning, Galluzzo, and Myers, 1988; Phillips, McCartney, and Scarr, 1987; Vandell, Henderson, and Wilson, 1988).

Given these findings, there is cause for concern. The National Child Care Staffing Study (NCCSS), a comprehensive study of 227 centers in five metropolitan areas, found that the overall quality of child care was "barely adequate." The NCCSS found that middle-income children were in the poorest quality centers, with the worst staff-to-child ratios, the least developmentally appropriate activities, and the highest turnover of teachers (Whitebook, Howes, and Phillips, 1989). Another study, conducted for the US Department of Education, found that quality in child care centers, particularly for

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infants and toddlers, had declined over the past two decades (Kisker, Hofferth, Phillips, and Farquhar, 1991).

It is generally recognized that the most important ingredient of quality child care is the relationship between the children and their teachers. Through this relationship, children learn social skills as well as feeling safe, secure, and nurtured (Galinsky and Friedman, 1993). Group size, staff-to-child ratios, and teacher training and education significantly influence the nature of the teacher-child relationships and subsequently child outcomes. These variables have been consistently linked with a more positive, caring, stimulating relationship between teacher and child.

Group size and staff-to-child ratios. The National Day Care Study found that in smaller groups, teachers spent more time interacting with children and less time simply watching over them. Children in smaller groups were more involved in activities, more verbal, less aggressive, and made the most substantial gains in standardized tests of learning and vocabulary (Ruopp, Travers, Glanz, and Coelen, 1979). The NCCSS found that small group sizes were particularly significant for infants (Whitebook, et al., 1989). In the National Day Care Study, ratios were predictive of positive development for infants only (Ruopp, et al., 1979). In contrast, the NCCSS found ratios were significant for children of all ages. When staff-to-child ratios were higher, teachers were more sensitive, less detached and severe, and provided more developmentally appropriate activities (Whitebook, et al., 1990).

Teacher training and education. Training and education have been found to be strong predictors of quality. The National Day Care Study determined that one of the most important ingredients of quality was the on-going, specialized training of teachers. In programs where the teachers had received early childhood training, the children behaved more positively, were more involved in activities, and more cooperative. These children had the highest gains on standardized tests of learning (Ruopp et al., 1979). The NCCSS found that a college education was even more highly related to quality than specific early childhood training (Whitebook et al., 1989).

Licensing standards delineate minimum practices below which no agency or program should operate and are intended to provide for the safety and protection of the children in care. Nevertheless, there is no uniformity in regulatory standards across states and consequently no regulatory consensus about the minimum practices below which no program should operate. When examining the quality of early childhood programs across states, researchers found that programs in states with more stringent

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regulatory standards had programs with higher quality than those in states with less stringent regulatory standards (Whitebook, et al., 1989; Phillips, Mekos, Scarr, McCartney, and Abbott-Shim, submitted for publication). The researchers conclude that these and other results provide a "compelling case" that the stringency of state standards sets a threshold of quality.

Amidst considerable debate, the Georgia Department of Human Resources revised the child care licensing rules and regulations in 1991. Revised regulations went into effect as of March 1, 1991 and were fully implemented by September 1, 1991. The controversial revisions in regulations included (1) more stringent staff-to-child ratios; (2) limits on group sizes for the first time; and (3) an increase in staff training requirements to 10 hours annually. The previous and current ratios and group size limits are summarized in Table 1.

Concern was raised by the child care industry in Georgia that these changes would cause financial hardship to programs and subsequently to parents. Because the changes in ratios focused primarily on infants and toddlers, there was industry concern that infant services would become too expensive and, as a result, be discontinued. Others predicted that programs would be unable to serve low- and moderate-income families and that the lowest income children would go unserved. Furthermore, there was concern that in order to save money, programs would have to hire less experienced staff

TABLE 1
Summary of Georgia child care regulations
for ratios and new group size by age group

Previous Ratios		Revised Ratios*		New Group Size Limits**
1:7	(0-18 mos.)	1:6	(0-12 mos.)	12
1:10	(18-30 mos.)	1:8	(12-24 mos.)	16
1:12	(30-42 mos.)	1:10	(24-36 mos.)	20
1:15	(3-4 yrs.)	1:15	(3-4 yrs.)	30
1:18	(4-5 yrs.)	1:18	(4-5 yrs.)	36
1:20	(5-6 yrs.)	1:20	(5-6 yrs.)	40
1:25	(6+ yrs.)	1:25	(6+ yrs.)	50

* Revised ratios redefined the age ranges of the children
** Revised regulations included limits on group sizes; group size was not previously regulated

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at lower wages. In the worst case, it was argued that child care programs would be forced to close. It was predicted that limits on group size, more stringent staff-to-child ratios, and additional training requirements would have significant negative implications for child care programs. However, the assumptions about these changes had been largely untested.

The Child Care Licensing: Georgia Impact Study was designed to test these assumptions and to ascertain the impact of regulatory change on child care programs. Data were collected in the spring of 1991, prior to full implementation of the revised regulations and again in 1992 to document program changes and impact. The Impact Study included a survey of all Georgia licensed child care programs serving infants and toddlers (1991, 1992), and follow-up telephone interviews with a sample of child care program administrators (1992).

Methods

Survey

During the spring of 1991 and 1992, the Georgia Child Care Licensing Survey was mailed to all Georgia child care programs that served infants and toddlers. A total of 1,477 surveys were mailed in both years. To encourage survey returns, the survey mailing included a letter of explanation and notification that returned surveys would be entered into a drawing for free registrations at local conferences and training workshops. A letter of support from the Director of Child Care Licensing in Georgia was also enclosed. A follow-up, reminder postcard was mailed to each director. The survey was then mailed a second time to administrators who had not yet responded. Ten programs were randomly selected from respondents to receive free registration at local training events. In 1991, 570 programs responded to the survey resulting in a 39% response rate.

During the spring of 1992, the Georgia Child Care Survey questions were modified to capture program experiences with the licensing changes as of 1992. The survey was mailed again to all child care programs serving infants and toddlers. Once again a reminder postcard and a second survey was mailed. Lakeshore Curriculum Materials Company donated classroom materials and nine programs were randomly selected from among the 1992 returned surveys to receive these free curriculum materials. In 1992, 409 programs responded resulting in a 27% response rate.

Director Telephone Interviews

Of the 409 total respondents in 1992, 100 programs were randomly selected for follow-up telephone interviews. Follow-up telephone interviews were completed with 82 child care center administrators. Of the remaining 18 programs, 7 were unable to be reached because their telephones were disconnected, 5 could not be reached, and 6 administrators were reached but interviews were unable to be completed. In the summer of 1992, telephone interviews were conducted to gather qualitative elaboration from child care administrators regarding their assessment of the impact of the licensing changes.

Sample

Of the 1,477 surveys mailed, 570 surveys, or 39%, were returned in 1991 and 409 surveys, or 27% were returned in 1992. Zip codes on the returned surveys were compared with the number of surveys mailed to each zip code area to determine if the responses were proportionately distributed across Georgia and thus representative of the distribution of child care throughout the state. The percentage of child care programs to whom surveys were mailed are reported for each year by zip code in Table 2 along with the distribution of the responding programs. In this table and other tables, differences between proportions were tested using a z-test for two proportions with a Bonferroni correction for the number of tests. The proportion of survey respondents, in both 1991 and 1992, was not statistically different from the geographic proportion of child care programs serving infants and toddlers except in Atlanta for 1991 where the difference was significant ($p<.05$ using a Bonferroni correction for the test).

TABLE 2
Percentage of Licensed Programs by Zip Code and Proportionate Response Rate for Each Survey Year*

Zip Code	Percentage of Programs (n=1477)	Percentage of Returns 1991 (n=570)	Percentage of Returns 1992** (n=404)
300-303 (Atlanta)	56%	46%	48%
304	2%	3%	2%
305	4%	5%	5%
306	4%	5%	5%
307	3%	4%	3%
308-09 (Augusta)	4%	5%	5%
310-312 (Macon)	9%	10%	8%
313-314 (Savannah)	4%	5%	7%
315	3%	2%	4%
316	2%	2%	1%
317	6%	7%	6%
318-319	3%	3%	3%
no zip reported		1%	2%

* Surveys were mailed only to licensed programs serving infants and toddlers. Surveys returned undeliverable are not included in this Table.
** This column does not total 100% due to rounding.

Sample

To determine if the responding programs were comparable for both 1991 and 1992, programs were compared by program size, years of operation, and type of program. In both 1991 and 1992, participating programs reported an average of 11 years of operation with a range from 6 months to 66 years. The median years of operation was 9 for 1991 participants and 8 for 1992. The mode was 2 years of operation for 1991 participants and 3 years for 1992. The average licensed capacity was 85 children in 1991 and 91 children in 1992. The average enrollment was 86 children in 1991 and 82 children in 1992. There were no significant differences between the samples ($p<.05$).

Survey respondents represented a variety of types of child care programs. The percentage of each type of child care program is summarized by year in Table 3. Representation for each type of program was not significantly different ($p<.05$) for both 1991 and 1992. A majority of the responding programs, 64% and 60% respectively, were for-profit child care programs. Nonprofit programs accounted for 36% and 39% of participating programs in 1991 and 1992 respectively. Summary information about the percentage of licensed child care programs in each of these categories is not currently available for Georgia.

TABLE 3
Percentage of Child Care Programs
Responding to the Impact Survey
by Type for 1991 & 1992

	1991 (n = 569)	1992* (n = 404)
For Profit Programs		
Independent	53%	50%
Local Chain	3%	3%
National Chain	8%	7%
Non-Profit Programs		
Community	17%	17%
Church	14%	17%
Employer	5%	5%

* This column does not total to 100% due to rounding.

Sample

Although the programs that participated in the Georgia Impact Study represented a proportionate distribution of child care programs in Georgia, the response rate was relatively low in both 1991 and 1992. To determine if the characteristics of the resulting sample were representative of the Georgia child care population, the sample was compared with the programs that participated in the A. L. Burrus Georgia Child Care Survey. In 1993, the A. L. Burrus Institute of Public Service, at Kennesaw State College, conducted a telephone survey of Georgia child care programs. The purpose of the Burrus survey was to determine the operating characteristics of child care programs in Georgia.

The Burrus child care survey obtained a similar representation in their survey sample. The Burrus Institute identified a sample of 900 programs for whom telephone numbers were available. As a result of telephone interviews, 640 programs, or 71% of the identified sample, responded to the Burrus survey. The responding 640 programs represented approximately 35% of the 1,854 licensed Georgia child care programs in Georgia for 1991. Of the Burrus sample, 50% were located within the metropolitan Atlanta area.

The Burrus Institute reported that 77% of the programs that responded to their telephone survey were for-profit programs and 23% were nonprofit. The Burrus Institute did not report the average number of years of operation for participating programs, but did report that the "mean year of opening" was 1979, or 12 years prior to the survey. The average enrollment for 1991 was 78.5 children.

Sampling and survey strategies differed between the Burrus and the Georgia Impact Study surveys. The Burrus survey included all licensed child care in Georgia and the Georgia Impact Study included only licensed child care that served infants and toddlers. However, in the absence of a more comprehensive profile of the characteristics of child care in Georgia, a comparison of survey samples provides useful information, although incomplete. In the Burrus sample, 77% of the programs were for-profit and 23% were nonprofit. In the Georgia Impact Study sample, 64% of the programs were for-profit and 36% were nonprofit. The average number of years of program operation was 11 years in 1991 and 1992 for the Georgia Impact Study survey sample and 12 years for the Burrus 1991 survey sample. Average enrollments were 78 children for the Burrus

Sample

survey and 82 and 86 children in the 1991 and 1992 Georgia Impact Study survey respectively. Despite differences in the geographic distribution between the Georgia Impact Study survey and the Burrus survey, the samples have similar characteristics in terms of program type, average years of operation and average number of children enrolled.

The findings of the 1991 and 1992 Child Care Licensing: Georgia Impact Study are summarized in the following report. In addition, a summary of the number of child care programs that opened and closed between 1988 and 1992 is also provided.

Program Closings and Openings

To determine if the revised regulations may have caused programs to close as predicted, information about child care program closings and openings was obtained from the Georgia Department of Human Resources. The number of openings and closings is reported for a five year period from 1988 to 1992 in Table 4. There was a net increase of 22 child care programs in 1991 and 5 in 1992. Contrary to predictions, the number of child programs did not decrease in 1992. In addition, a review of the pattern of industry growth in Georgia since 1988, suggests that expansion in the industry may occur in alternate years. This pattern is illustrated in Figure 1. The most significant industry growth occurred in 1989, with a net increase of 91 programs, followed by a decline of 7 programs in 1990. There was an increase of 22 new programs in 1991, while in 1992, program growth was modest with a net increase of only 5 programs. Over the past five years, the net growth in the Georgia child care industry was 121 programs with an average annual increase of 24.2 programs.

TABLE 4
Number of Child Care Program Openings, Closings, and Net Change in Georgia by Year

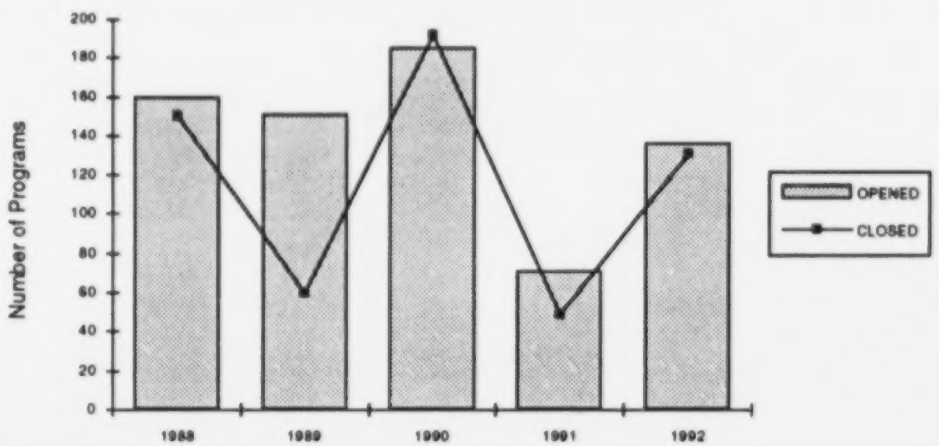
Year	# Opened	# Closed	Net Change
1988	160	150	+10
1989	151	60	+91
1990	185	192	-7
1991	71	49	+22
1992	136	131	+5

Of the 131 child care programs that closed in 1992, some may have done so as a result of the regulatory changes. However, based upon the history of the industry, the number of closings was consistent with an established pattern of program closings. In

Program Closings and Openings

conclusion, revisions in the child care regulations did not result in a decrease in the total number of child care programs in Georgia. To the contrary, Georgia experienced a net increase of 5 programs in 1992.

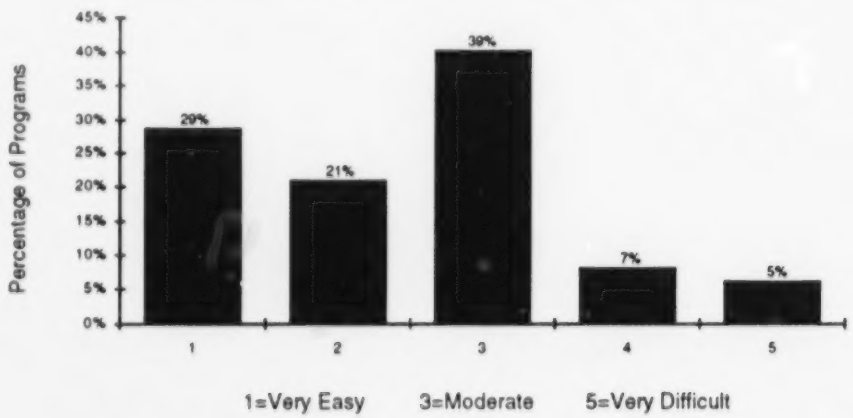
FIGURE 1
Georgia Child Care Programs:
Opened and Closed for 1991 and 1992



Ease or Difficulty in Compliance with Regulations

The 1991 survey asked administrators to anticipate the level of ease or difficulty in meeting the revised regulations for ratios, group size and training, and the 1992 survey asked administrators to rate their actual experience. Ratings were based on a 5-point scale. 1= very easy, 3 = moderate, and 5 = very difficult. The mean rating for both 1991 and 1992 was 2.4, falling between very easy and moderate. Of the 1992 responding administrators, 50% reported that it had been somewhat to very easy (ratings 1 and 2) to meet the revised regulations, 38% reported moderate and 12% reported somewhat to very difficult (ratings 4 and 5). Findings are illustrated in Figure 2.

FIGURE 2
Ease of Compliance with Licensing Changes - 1992



Responses were examined to determine if there were differences in ratings between 1991 and 1992 as a function of the type of program (i.e. for-profit, nonprofit, employer sponsored, etc.), size of program, years of operation, or geographic location. It was found that there were no differences in ratings as a function of program type, size, age, or location in 1991 or 1992. Therefore, 1992 responses are discussed here and reflect the experience of administrators approximately one year after regulations were implemented.

Ease or Difficulty in Compliance with Regulations

Administrators were asked to explain their ratings of ease or difficulty in compliance. The 88% of the administrators who indicated that compliance with the revised regulations was moderate to very easy reported that they had already been meeting the requirements. Generally, this was because:

- the program was nationally accredited;
- the program was relatively new and began with higher standards than licensing required;
- their company standards already exceeded licensing standards;
- the program was small and always had good ratios; or
- staff training was the only necessary change.

The 12% of administrators who indicated that compliance with the revised regulations was somewhat to very difficult reported that this was due to a variety of reasons including:

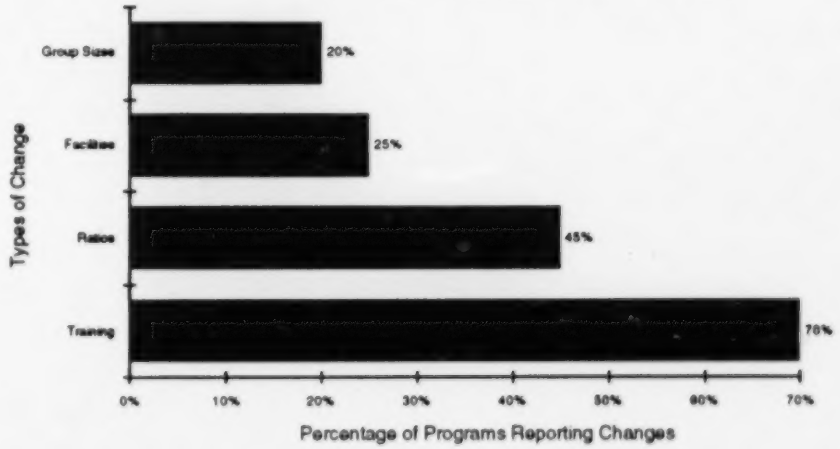
- lack of clarity in the written regulations;
- difficulty in interpreting regulations;
- cost increases for staffing;
- cost increases for training;
- time needed for staff training;
- availability of training;
- availability of qualified staff;
- limited financial means; or
- limited time provided to meet requirements.

Of the 54 programs (or 12 percent) that experienced difficulty, the programs were: employer sponsored (1); local chain (1); independent for-profit (27), nonprofit (14); and church sponsored (11). With respect to the sample as a whole, those experiencing difficulty showed no distinguishing characteristics due to the size of the program, geographic location, or years of operation. In other words, those programs that reported difficulty were both small and large, rural and urban, new and old.

Type of Change

The 1992 survey asked administrators to report the types of changes that were made in their child care programs due to the revised regulations. Responses are summarized in Figure 3. Of the responding administrators, 70% reported that their programs made changes in staff training and 25% made changes in their physical facilities as a result of the revised regulations. Only 45% of the administrators reported making changes in ratios and 20% made changes in group sizes. Survey responses suggest that over half of the programs were already meeting the ratios delineated in the revised child care licensing regulations and that 80% were already meeting group size specifications. This finding is consistent with reports from directors who indicated that implementation of the revised regulations had been moderate to very easy.

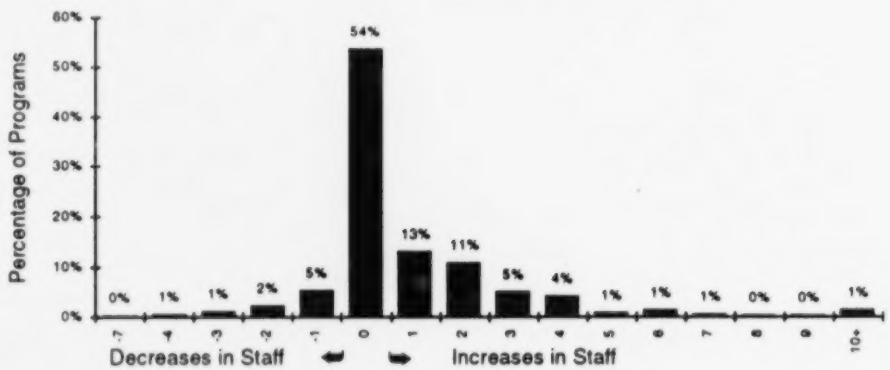
FIGURE 3
Types of Changes Reported by Programs - 1992



Type of Change

In 1992, there were slight increases in the number of teaching staff across participating programs. According to survey respondents, these changes were a response to meeting the new regulations on ratios. The average number of teaching positions per program was 10 in 1991 and 11 in 1992. In 1992, 54% of the programs reported no changes in the total number of classroom staff positions during the previous year, while 37% increased staff and 9% decreased staff. Among those programs that increased staff, the number of new teaching positions reported ranged from 1 to 19 per program. For those programs that decreased staff, the decrease ranged from 1 to 7, as seen in Figure 4. Across the sample, the net increase in teaching positions for 1991 was one teacher per program and, in 1992, two teachers per program. Across the sample, participating programs reported a net increase of 6% in teaching positions in 1991 and 8% in 1992.

FIGURE 4
Percentage of Programs by Number of Decreases and Increases in Staff Positions for 1992



Staff Turnover

There were no significant differences in staff turnover between 1991 and 1992. Staff turnover rate reported for the 1991 sample was 28% and 26% for the 1992 sample. The National Child Care Staffing Study (NCCSS) of child care in five metropolitan areas also reported 26% staff turnover rates between 1991 and 1992. The NCCSS report also indicated that 26% turnover ". . . is close to three times the annual turnover of 9.6% reported by U.S. companies in 1992 and double the 12% turnover rate reported by non-business companies, including government, school, and other nonprofit organizations." (Whitebook, Phillips, Howes, 1993, p. 10)

Not all child care programs experienced staff turnover. Turnover in teaching staff was reported by 75% of the programs in 1991 and 72% in 1992. For those programs reporting staff turnover, an average of four staff per program terminated employment each year, representing approximately one third of their teaching staff.

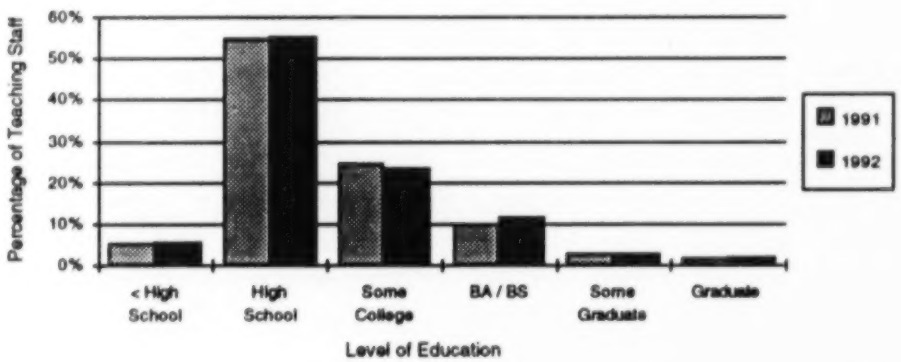
Because of the increase in staff positions, staff turnover, and low wages, hiring time was also examined. As was previously noted, there was a slight increase in staff in 1992. Vacancies were filled within three weeks in both years. In 1991, 71% of programs required two weeks to fill positions and 11% required three weeks. In 1992, only 64% of programs filled vacancies within two weeks and 19% required three weeks. Therefore, filling vacancies took somewhat longer in 1992.

The NCCSS reported that the average number of teaching staff employed by a program increased from 14.3 to 16.2 from 1988 to 1992 (Whitebook, et al., 1993). This increase was due entirely to increases in the hiring of assistant teachers who were, by and large, significantly younger, less well-educated, and less adequately trained. Opponents of the changes in staff-to-child ratios had predicted that the qualifications of staff would decrease if stricter ratios were imposed. The Georgia Impact Study did not gather information regarding the balance between teachers and assistant teachers. Contrary to predictions, however, a review of overall staff education and training reveals no difference between 1991 and 1992 as described in the next section.

Education & Training of Child Care Staff

While there was a 26% turnover in teaching staff from 1991 to 1992, there was no significant difference (at the $p>.05$ level) in the educational background of the teaching staff (see Figure 5). Just over half of the teaching staff (55% in 1991, 55% in 1992) completed high school or obtained a GED. Approximately one quarter of the teaching staff completed some college; 25% in 1991 and 23% in 1992. In 1991, 10% of teaching staff had four year college degrees, and 11% in 1992. For both survey years, 5% of the teaching staff had graduate school experience or degrees. These findings suggest that hiring practices did not change in Georgia. In both years, approximately half of the teaching staff had a high school education or equivalency, 25% had some secondary education, and 15% to 16% had four year degrees or more.

FIGURE 5
Level of Education for Teaching Staff 1991-1992
1991 (n=5,404) 1992 (n=3,943)

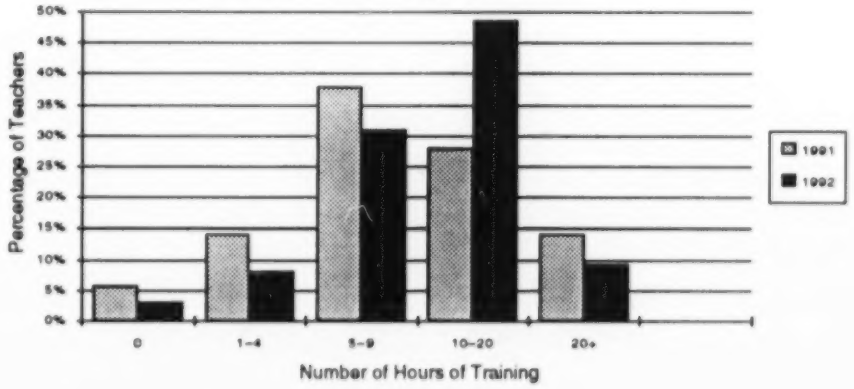


The new regulations require 10 hours of annual training. Between 1991 and 1992, there was a significant increase ($p<.001$) in the number of staff who had participated in 10 to 20 hours of training. There was a significant decrease in the percentage of teaching staff who completed 1-4 hours of training ($p<.01$), 5-9 hours of training ($p<.001$), and 20 or more hours of training ($p<.05$). In 1992, there was a slight, but not significant, decrease in the percentage of teaching staff who had not completed any training. In 1991, only 28% had participated in 10-20 hours of training but in 1992 this rose to 49%. In contrast, the number of teaching staff who participated in 20 or more hours of training

Education & Training of Child Care Staff

decreased slightly from 14% in 1991 to 9% in 1992. This decrease may be a result of the need to redistribute financial resources across a greater number of staff to pay for more hours of training for more teachers in 1992. These findings are illustrated in Figure 6.

FIGURE 6
Percentage of Teaching Staff by Number of Hours of Training 1991 & 1992



The revised regulations require training for child care staff in the following topics: first aid and/or CPR, early childhood education and development, disease and injury control, and reporting and detection of child abuse and neglect. The percentage of programs that reported staff participation in training is summarized in Table 5.

TABLE 5
Percentage of Programs that Completed Staff Training by Topic for 1991 and 1992

	1991 (n=570)	1992 (n=408)
First Aid and/or CPR	84%	90%
Early Childhood Education/Development	84%	89%
Disease & Injury Control	48%	84%
Reporting & Detection of Abuse & Neglect	50%	85%

Education & Training of Child Care Staff

A significantly greater number ($p<.05$ with a Bonferroni correction for the table) of administrators reported that their staff had completed training across all required training topics in 1992. The greatest increases were for training in disease and injury control and reporting and detection of abuse and neglect. The percentage of programs whose staff received training in disease and injury control increased from 48% in 1991 to 84% in 1992. The percentage of programs whose staff received training in reporting and detection of child abuse and neglect increased from 50% in 1991 to 85% in 1992.

Wages of Child Care Staff

Directors reported wages for 5,475 teachers in 1991, and 4,900 in 1992. These data are summarized in Table 6. In 1992, a larger percentage of teaching staff earned above minimum wage than in 1991. In 1991, nearly one-third of the teaching staff earned at or below minimum wage ($4.25) and just over half earned between $4.26 and $6.20 an hour. In 1992 the percentage of teaching staff earning minimum wage or below decreased from 32% to 20%, while those earning between $4.26 and $6.20 an hour increased from 55% to 64%. The percentage of teaching staff earning more than $6.20 an hour did not change significantly from 1991 to 1992.

Salaries at the lower end of the pay scale improved in 1992. In 1991, 32% of the teaching staff earned less than $7,500 annually and in 1992 only 20% earned less than $7,500. Despite the 1992 increase, 83% of teaching staff working in Georgia's child care programs still earned less than $11,000 and 94% earned less than $14,000.

TABLE 6
Percentage of Teachers by
Wages Categories for 1991 and 1992

	<$4.25	$4.25	$4.26-$6.20	$6.21 - $7.99	$8 - $9.99	$10+
Maximum Annual Wage	$7,420	$7,438	$10,850	$13,983	$17,483	$17,500+
1991 (n=5,475)	4%	28%	55%	10%	3%	2%
1992 (n=4,900)	1%	19%	64%	11%	3%	2%

These data were examined to determine if reported increases in wages occurred across all types of programs. The percentage of teaching staff within each wage category is reported by type of program in Table 7. With the exception of national chains, all programs reported greater numbers of teaching staff earning between $4.26 and $6.20. National chains reported a 19% decrease in the number of teaching staff in this category but an increase in the percentage of teaching staff earning in both the

minimum wage ($4.25) and the $6.21 to $7.99 categories. The proportion of teaching staff earning between $4.26 and $6.20 is more comparable across all programs in 1992 than in 1991, except for community, nonprofit programs. Employer sponsored and community nonprofit programs reported the largest increase in the percentage of teaching staff earning between $4.26 to $6.20.

TABLE 7
Percentage of Teaching Staff by Program Type
and Wages Categories for 1991 and 1992*

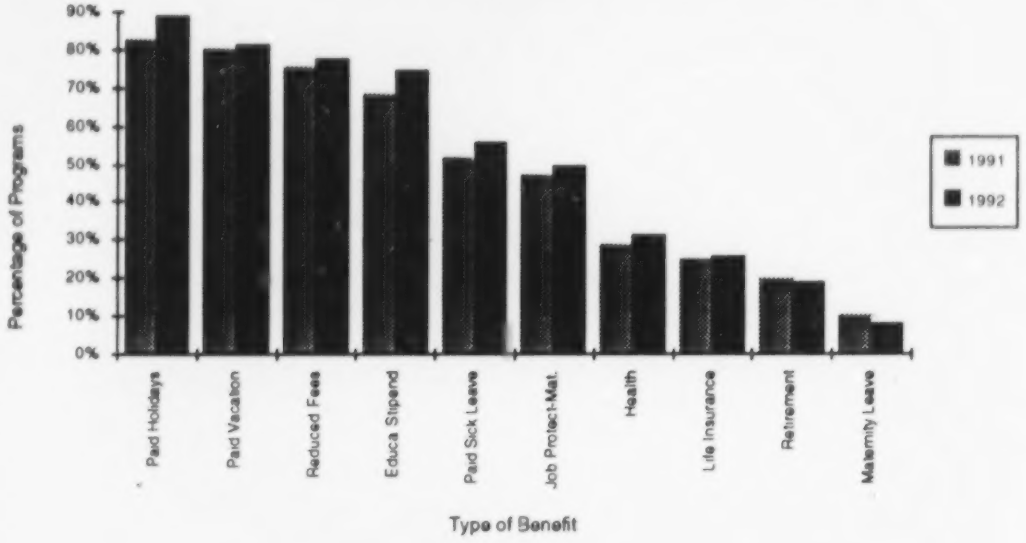
	<$4.25		$4.25		$4.26-$6.20		$6.21 - $7.99	
	1991	1992	1991	1992	1991	1992	1991	1992
Independent, For-Profit	5%	1%	38%	26%	48%	62%	7%	8%
Local Chain	5%	1%	18%	26%	59%	62%	17%	8%
National Chain	0%	0%	14%	26%	78%	59%	6%	15%
Community, Non-Profit	3%	0%	22%	5%	58%	87%	13%	7%
Church	4%	2%	23%	14%	59%	65%	9%	13%
Employer	1%	3%	9%	17%	44%	64%	27%	13%

*Only wage categories with reported changes from 1991 to 1992 are included.

Child Care Staff Benefits

The percentage of programs providing teaching staff benefits for the 1991 and 1992 sample are summarized by type of benefit in Figure 7. There was a significant difference for only one of the benefits provided to staff between 1991 and 1992. There was a significant increase ($p<.05$) in the number of programs reporting paid holidays as a benefit. In both years, the most commonly provided staff benefits were paid holidays and vacations, reduced child care fees, and educational stipends. Just over 50% of the programs provide staff with paid sick leave and just under 50% provided unpaid, job protected maternity leave. Only 10% offered paid maternity leave in 1991 and 8% in 1992. In 1991, only 28% of the programs offered health insurance and 31% in 1992. In both 1991 and 1992, approximately 25% of the programs offered life insurance and 19% offered retirement benefits. Although, for most categories there were no significant differences in benefits provided to staff between 1991 and 1992, there was a small but consistent increase in the number of programs reporting benefits in each category. This may represent the beginning of a trend toward providing a broader range of benefits.

FIGURE 7
Percentage of Programs by
Staff Benefits Provided in 1991 & 1992



Enrollment

In 1992, 51% of surveyed programs reported changes in enrollment and 49% reported no changes. Further analyses were done of the programs reporting enrollment changes. These programs reported enrollment changes by classroom and age group. Of the preschool and school age classrooms, 59% increased enrollment by an average of 8.9 children and 41% decreased enrollment by an average of 12.7 children.

The following formula was used to determine the net increase or decrease in enrollment for each age group.

[% classrooms reporting decrease x (–) average decrease]
\+ [% classrooms reporting increase x (+) average increase]

Net Change in Enrollment

Decreases in the enrollment of preschool and school age children were offset by enrollment increases so that no overall change was observed in this age group. Of the infant and toddler classrooms 68% increased enrollment by an average of 6.5 children and 32% decreased enrollment by 3.9 children. The net increase in enrollment for infant and toddler classrooms was 3 children.

Administrators indicated the reasons for the changes in enrollment. Only 47% (n=57) of the administrators who reported decreases in enrollment also provided explanations for the decrease. The primary reason for decreases in enrollment was economics (n=30, 53%). Administrators indicated that children were withdrawn from their child care programs due to current economic conditions that resulted in unemployed parents and/or family relocation for new job opportunities. The second most frequently stated reason, (n=18, 32%) was that enrollment was reduced to comply with the stricter staff-to-child ratios of the new licensing regulations. The third reason, (n=9, 16%) was local competition from other child care programs and specifically public school sponsored programs, such as kindergarten, At-Risk Four-Year-Old programs and school age programs.

Enrollment

Of the administrators who reported increased enrollment, 37% (n=82) provided explanations. Approximately one third of the administrators (n=32, 39%) reported that program expansion included new classrooms, ne child care slots within classrooms, new programs, and upgraded facilities. Approximately one third of the administrators (n=31, 38%) reported that increased enrollment was the result of their positive reputation for program quality, community need, advertising, and expansion to retain younger children as they moved into older age groups. A small number of programs (n=11, 13%) reported that child care slots were increased to offset staffing increases. Staffing increases were the result of the revised licensing requirements for lower staff-to-child ratios, program reorganization and new management. In a few instances (n=8, 10%) administrators indicated that enrollment increases were the result of parents entering employment and child care subsidies.

Rates

Weekly, full-time, child care rates are reported in Table 8 for each age category by mean, minimum, maximum, and standard deviation for both 1991 and 1992. The rates for school-age care are not reported here due to the limited number of cases in this category.[1] The average weekly child care fee in 1991 ranged from $50 to $63 and in 1992 it ranged from $53 to $68 depending upon the age of the child. For all age groups, except kindergarten, there was a significant increase in the average weekly child care rate. The average weekly increase was $5 for infants ($p< .01$), $4 for toddlers ($p<.01$) and $4 for preschoolers ($p<.001$). While the average weekly child care rate for kindergarten children increased by $3, it was not statistically significant ($p>.05$). Informal reports from program administrators indicated that these rate increases were typical for the industry. However, data are not currently available in Georgia to confirm if these increases are, or are not, typical. The range in child care rates from the minimum weekly fee to the maximum were widely distributed though skewed toward lower rates across all age categories.

TABLE 8
Weekly, full-time, child care rates* for each age category
by mean, median, mode, and range for 1991 and 1992

	Infants		Toddlers		Preschool		Kindergarten	
	(n=458) 1991	(n=316) 1992	(n=514) 1991	(n=355) 1992	(n=533) 1991	(n=370) 1992	(n=349) 1991	(n=222) 1992
Mean	$63	$68	$60	$64	$56	$60	$50	$53
Minimum	$12	$26	$7	$15	$11	$15	$0	$5
Maximum	$163	$160	$160	$160	$131	$160	$121	$105
Standard Deviation	$21.02	$22.46	$18.66	$19.84	$15.96	$17.54	$19.12	$19.56

*Rates were rounded to the nearest dollar.

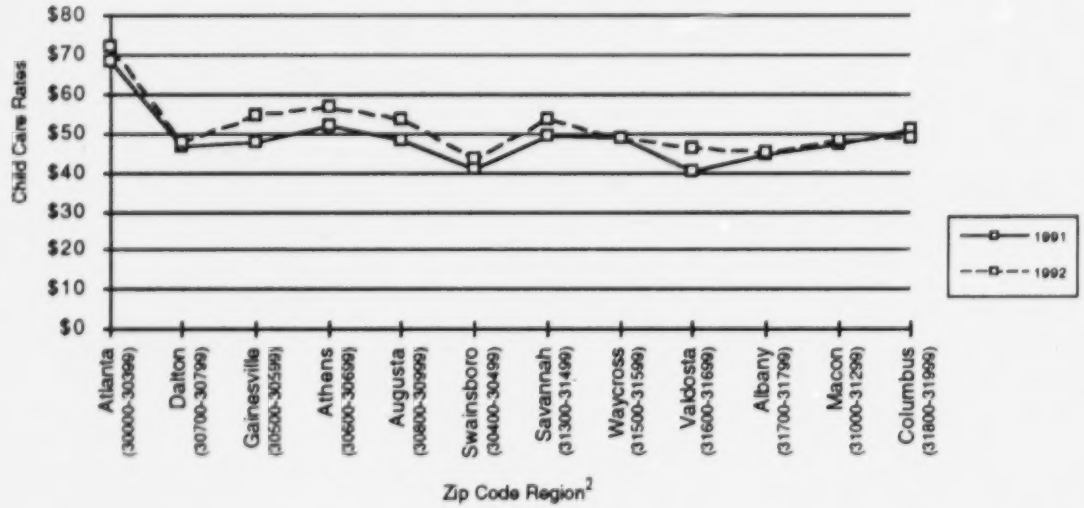
The floor, or minimum rate of child care, rose for infants and toddlers in 1992 while the maximum rate remained virtually the same. In contrast, the child care rates for preschoolers increased minimally at the lower end of the range but rose at the higher end. This reduction in range suggests movement towards equalization in the cost of care.

[1]The Georgia School-Age Care Association (1993) reported the average weekly fee for school-age care was $48.44.

Rates

The cost of child care was considerably higher in the metropolitan Atlanta area than in other parts of the state with an average cost, across age groups, of $68 in 1991 and $72 in 1992. After Atlanta, the highest 1992 child care rates were reported for zip code regions surrounding Athens($56), Gainesville ($55), Savannah ($53), and Augusta ($53). The lowest average rates were reported in zip code regions surrounding Columbus ($49), Waycross ($49), Dalton, ($48), Macon ($48), Valdosta ($46), Albany ($45) and Swainsboro ($43). The 1991 and 1992 average weekly rates for each zip code region are illustrated in Figure 8.

FIGURE 8
Average Child Care Rates by Zip Code Region
1991 & 1992



[2] For the purpose of geographic orientation, the major city for each zip code region has been included in Figure 8. However, the zip code regions generally extend across rural areas well beyond each city.

Child Care Licensing: Georgia Impact Study

Summary

In conclusion, the Child Care Licensing: Georgia Impact Study found that regulatory changes toward more stringent staff-to-child ratios, limits on group size, and additional training requirements did not have a negative impact on the child care market place. Only a modest percentage of responding programs (12%) reported difficulty in meeting the regulatory changes. Revisions in the child care regulations did not result in a decreased number of child care programs or infant and toddler child care slots in Georgia. Contrary to predictions, changes in staff-to-child ratios contributed to a modest increase, versus a decrease, in the number of teaching staff and child care slots in child care programs. There was a slight decrease in staff turnover between 1991 (28%) and 1992 (26%) and no significant difference in the educational background of the teaching staff. Teachers who earned at the lowest end of the pay scale experienced wage increases and as a result, fewer teachers earned at or below minimum wage in 1992. Staff benefits were not reduced in 1992. These findings revealed that the industry did not resort to hiring less qualified staff at lower salaries with fewer benefits.

In general, the 1992 picture of child care in Georgia, following the regulatory changes, was a positive one. There was a modest increase in new child care programs and teaching positions. There was a significant increase in the number of staff who participated in more hours of training between 1991 and 1992. In addition, a larger percentage of teachers earned above minimum wage in 1992 than in 1991. There was a net increase of three infants and toddlers per program.

However, the focus of the Georgia child care picture changes when viewed from a national perspective. The most controversial changes pertained to the reduction of staff-to-child ratios and the regulation of group size. The regulatory changes implemented in Georgia were relatively modest and fell short of standards recommended by the National Association for the Education of Young Children (NAEYC). For infants, the staff-to-child ratio was reduced by one infant. For toddlers the ratio was reduced by two. The revised infant ratio of 1 to 6 and group size of 12 still exceeds the maximum ratio recommended by NAEYC of 1 to 4 with a maximum group size of 8 infants. The revised toddler (12 - 24 months) ratio of 1 to 8 and a group size of 16 also exceeds NAEYC recommended maximum ratio of 1 to 5 in a group of 10 children or 1 to 4 in a group of 12 children.

Summary

In addition, the weekly cost of child care increased from 1991 to 1992 by an average of $3 to $5 across all age groups. Historical data were not available for comparison to determine if these changes were consistent with typical annual increases or perhaps the result of regulatory changes. Two implications of rate increases should be noted. The average increase in child care rates raised the floor, or minimum fee charged for child care while, the ceiling, or maximum rate, remained virtually the same except for preschoolers. These changes may represent a movement toward reducing the range in the variability of rates across Georgia and thereby greater equalization in the cost of care. Such a change may reflect an industry movement towards charging the "real" and "full cost" of care. On the other hand, if the floor in child care rates rises, the greatest impact will most likely be felt by low-income families. This study was designed to document the impact on programs and therefore cannot address the specific impact on families of varying incomes. Among those administrators who reported reduced enrollment, 53% (n=30) report that decreases in enrollment occurred because parents lost their jobs and/or relocated for new employment. Administrators did not report that an increase in rates was the reason for reduced enrollment. In fact, there was a net increase of three children enrolled in infant and toddler classrooms in 1992.

In conclusion, the data from the Child Care Licensing: Georgia Impact Study show that when modest regulatory changes were implemented, the market place did not seem to suffer negative consequences.

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